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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,213	06/25/2003	Nicholas David Parkyn	200300274-1	5702

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EXAMINER

FORD, GRANT M

ART UNIT	PAPER NUMBER
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2141

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/607,213	PARKYN, NICHOLAS DAVID	
	Examiner	Art Unit	
	Grant Ford	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-18 and 20-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Brown et al. (US 2003/0110242), hereinafter referred to as Brown.

a. As per claim 1, Brown discloses a method of service discovery, said method comprising:

communicating with a source of an application software component, said application software component for performing a service (Para. 0031, 0033-0034, 0048, 0052);

receiving information descriptive of a status of said application software component (Para. 0048-0049); and

providing said status in response to a request for said service (Para. 0049).

b. As per claim 2, Brown discloses issuing to said source a request for said status (Para. 0048-0049).

c. As per claim 3, Brown discloses wherein said request for said status is issued automatically at different times (Para. 0048-0051). The Examiner asserts that the peer-to-peer status request is automatically invoked in a just-in-time execution system as disclosed.

d. As per claim 4, Brown discloses wherein said request for said status is issued automatically in response to said request for said service (Para. 0048 – see just-in-time service loading).

e. As per claim 5, Brown discloses receiving said status automatically at different times (Para. 0048 – status is automatically received during just-in-time service loading at time of service request).

f. As per claim 6, Brown discloses receiving said status automatically in response to a change in status of said application software component (Para. 0039).

g. As per claim 7, Brown discloses matching said application software component with said request for said service, wherein said application software component is selectable from a plurality of application software components that provide said service (Para. 0033, 0048, 0052).

h. As per claim 8, Brown discloses wherein said application software component can be utilized in a process, wherein said status is checked as said process is set up such that decisions on setting up said process can be made based on service availability (Para. 0039, 0048-0049, 0051).

i. As per claim 9, Brown discloses wherein said application software component is utilized in a process, wherein said status is checked as said process is

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executed such that decisions on executing said process can be made based on service availability (Para. 0039, Para. 0048-0049, 0051).

j. As per claim 10, Brown discloses wherein availability information for said application software component is also provided (Para. 0033, 0039, 0048-0049).

k. As per claim 11, Brown discloses wherein performance information for said application software component is also provided (Para. 0048-0049 – see load balancing).

l. As per claim 12, Brown discloses a method of performing a process that utilizes an application software component, said method comprising:

identifying a plurality of application software components, each of said application software components having the capability to perform a particular service that is a part of said process (Para. 0031, 0033-0034, 0048, 0052);

determining a status of at least a portion of said application software components (Para. 0048-0049); and

executing said process according to said status such that decisions on executing said process can be made based on service availability (Para. 0048-0049, 0051).

m. As per claim 13, Brown discloses wherein said application software components are stored in one or more repositories accessible by said process via the Internet (Abstract, Para. 0009, 0015, 0028).

n. As per claim 14, Brown discloses wherein said status is determined prior to said executing (Para. 0048-0051).

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o. As per claim 15, Brown discloses wherein said status is determined as said process is executed (Para. 0051).

p. As per claim 16, Brown discloses wherein said executing comprises: selecting from said plurality of application software components a first application software component to perform said service; and taking an alternative course of action when said status indicates that said first application software component is not available (Para. 0033-0034, 0048 – see load balancing mechanism/availability).

q. As per claim 17, Brown discloses wherein said alternative course of action comprises: selecting a second application software component to perform said service (Para. 0033-0034, 0049).

r. As per claim 18, Brown discloses wherein said alternative course of action comprises: performing a different service in said process, said different service utilizing an application software component different from said first application software component (Para. 0033-0034).

s. As per claim 20, Brown discloses wherein said first application software component is also selected according to its historical availability (Para. 0048-0049). The Examiner asserts that in a UDDI find/bind system, status information is historical availability, as the UDDI registration event retrieved from a UDDI server is based upon past data received by the UDDI server from a service host, in which the historical availability is then passed to a requestor.

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t. As per claim 21, Brown discloses wherein said first application software component is also selected according to its predicted performance (Para. 0034 – see suitability e.g., behind same firewall (same network)).

u. As per claim 22, Brown discloses wherein said process comprises a first execution path and a second execution path, wherein said first execution path uses a first set of application software components and said second execution path uses a second set of application software components, wherein said executing comprises: selecting an execution path according to respective statuses of said first set and said second set of application software components (Para. 0033-0034, 0048-0051).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 19 and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Zhao et al. (US 2003/0105846) hereinafter referred to as Zhao.

a. As per claim 19, Brown fails to disclose deferring a service until a time when status indicates that a component is available. Zhao teaches deferring said service until a time when said status indicates that said first application software component is available (Para. 0037). It would have been obvious to one having ordinary

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skill in the art at the time the invention was made to incorporate the use of deferred execution with service status information systems. One of ordinary skill in the art would have been motivated to do so for the purpose of allowing a request to be handled by a service when the service is available (Para. 0037).

b. As per claim 23, Brown discloses a method of performing a process that utilizes an application software component, said method comprising:

identifying services to be provided as part of said process (Para. 0031, 0033-0034, 0048, 0052);

identifying application software components that are for performing said services (Para. 0031, 0033-0034, 0048, 0052); and

determining statuses of said application software components (Para. 0048-0049). However, Brown fails to disclose deferring execution of a service in a process if components are unavailable.

Zhao teaches deferring execution of a service in said process if application software components for performing said service are unavailable and queuing deferred services for subsequent execution (Para. 0037). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of deferred execution with service status information systems. One of ordinary skill in the art would have been motivated to do so for the purpose of allowing a request to be handled by a service when the service is available (Para. 0037).

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c. As per claim 24, Brown discloses wherein said application software components are stored in one or more repositories accessible by said process via the Internet (Abstract, Para. 0009, 0015, 0028).

d. As per claim 25, Brown discloses wherein said statuses are determined prior to execution of said service (Para. 0048-0051). However, Brown fails to disclose deferring execution of a service in a process if components are unavailable.

Zhao teaches wherein execution of said service is not begun until said application software components are available (Para. 0037). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of deferred execution with service status information systems. One of ordinary skill in the art would have been motivated to do so for the purpose of allowing a request to be handled by a service when the service is available (Para. 0037).

e. As per claim 26, Zhao teaches wherein execution of said process is deferred if execution of a service in said process is deferred (Para. 0037). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of deferred execution with service status information systems. One of ordinary skill in the art would have been motivated to do so for the purpose of allowing a request to be handled by a service when the service is available (Para. 0037).

f. As per claim 27, Brown discloses wherein said statuses are determined as said process is executed (Para. 0048-0051).

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g. As per claim 28, Brown discloses wherein said process comprises multiple execution paths, said execution paths using different combinations of application software components, wherein said deferring comprises: deferring execution of an execution path until said statuses indicate that application software components used by said execution path are available while executing those execution paths that use application software components that are indicated as being available (Para. 0033-0034, 0048-0051).

Conclusion

5. The prior art made of record but not relied upon is considered pertinent to applicants' disclosure:

Fletcher et al. (6,985,939) teaches building distributed software services as aggregations of other services.

Kuno et al. (US 2004/0064554) teaches a network service system and mechanism for searching service registries.

Li et al. (6,961,760) teaches transforming data automatically between communications parties in a computing network.


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Grant Ford whose telephone number is (571)272-8630. The examiner can normally be reached on 8-5:30 Mon-Thurs alternating Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571)272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

gmf


RUPAL DHARIA
SUPERVISORY PATENT EXAMINER